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10/085,284	02/28/2002	Kazuhiro Shitama	09792909-5327	1150

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EXAMINER	
MURPHY, RHONDA L	
ART UNIT	PAPER NUMBER
2616	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/085,284	SHITAMA, KAZUHIRO	
	Examiner	Art Unit	
	Rhonda Murphy	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 September 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,9-17,20-22 and 25-29* is/are rejected.

7)☒ Claim(s) *7,8,18,19,23 and 24* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 September 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This communication is responsive to the amendment filed on 9/26/06. Accordingly, claims 28 and 29 have been newly added and claims 1-29 are currently pending in this application.

Claim Objections

1. Claims 10, 21, 22 and 27 are objected to because of the following informalities:

Claim 10, line 12, "virtual-network-prefix-ba- sed" shall be replaced with "virtual-network-prefix-based".

Claim 21, line 13, "virtual-network-prefix-ba- sed" shall be replaced with "virtual-network-prefix-based".

Claim 22, lines 1, 4 and 11, Examiner is inquiring whether the communication terminal device is the same as the mobile node. Line 11 describes the communication terminal device moving from a first subnetwork to a second subnetwork.

Claim 27, line 1, It is suggested to insert "stored on a computer-readable medium" between "program" and "which".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 4 – 6, 9 - 12, 15 – 17, 20 – 22, 25, 26, 28 and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Gwon (US 2003/0016655 A1).

Regarding claims 1 and 12, Gwon teaches a communication processing system (Fig. 1, system 100) comprising: a mobile node which is a mobile communication terminal device (Fig. 1, mobile 135), said system configured such that, in a domain including at least one sub-network (sub-networks 155), each sub-network being associated with a physical network prefix (page 4, paragraph 42, network IDs and addresses), a virtual network prefix for the mobile node is determined as a network prefix that is different from the physical network prefix (page 5, paragraph 50, care of IP address), an address configured based on the virtual network prefix and an identifier of the mobile node (page 5, paragraph 50), the communications process with the mobile node is performed according to the address (page 5, paragraph 50), and a router (Fig. 2, R1) in the domain routing a packet by performing host-based routing based on the identifier of the mobile node (page 5, paragraph 50).

Regarding claims 4 and 15, Gwon teaches a router in the domain forwarding a router advertisement as an information notification message containing information on the physical network prefix and the virtual network prefix (page 5, paragraph 50, mobile node 135 registers the new care of address with its home area router by sending

binding update messages containing the new care of IP address and the mobiles nodes's permanent home IP address).

Regarding claims 5 and 16, Gwon teaches a router routing a packet having the address which contains the virtual network prefix by performing the host-based routing (page 5, paragraph 50).

Regarding claims 6 and 17 Gwon teaches a router routing a packet having an address which contains a physical network prefix by performing prefix-based routing based on the physical network prefix contained in the address, or by performing the host-based routing (page 5, paragraph 50).

Regarding claims 9 and 20, Gwon teaches a system wherein, when the mobile node moves between sub-networks in the domain or in different domains (Fig. 2, mobile moves from R1 to R2), the mobile node sends a routing update message to a router in the domain (page 5, paragraph 50); and the router which has received the routing update message generates, updates, or deletes an entry for the mobile node in a routing table according to the received message (page 5, paragraph 50; recipients of the binding update message perform the binding in their own binding caches).

Regarding claims 10 and 21, Gwon teaches the same limitations described above in the rejection of claim 1. Gwon further teaches when the mobile node moves between subnetworks in different domains (see Fig. 2), the mobile node stores a virtual-network-prefix-based IPv6 address as a care-of address in a binding update packet (page 5, paragraph 50, also refer to the end of paragraph 44: Fig. 2 illustrates the hand-off process in a mobile IP version 6 network), the virtual-network-prefix-based IPv6 address

being created according to address configuration based on the virtual network prefix (page 5, paragraph 50), and sends the binding update packet to a home agent which manages the mobile node (page 5, paragraph 50), and the home agent which has received the binding update packet updates a binding cache (page 5, paragraph 50), in which the correlation between a home address and the virtual-network-prefix-based IPv6 address as a care-of address is stored, according to the received binding update packet (page 5, paragraph 50).

Regarding claim 11, Gwon teaches a plurality of domains are networked in a hierarchical manner, each domain including the at least one subnetwork (see Fig. 1; page 4, paragraph 42).

Regarding claim 22, Gwon teaches a communication terminal device (Fig. 1, router R2) performing a communications method via a network, comprising: receiving a router advertisement serving as an information notification message containing a physical network prefix (home address) and a virtual network prefix (care-of address) for a mobile node (page 5, paragraph 50), the physical network prefix being allocated to each of at least one sub-network included in a domain (page 4, paragraph 42, network IDs and addresses); and configuring an address based on the virtual network prefix retrieved from the received router advertisement serving as an information notification message and an identifier of the communication terminal device (page 5, paragraph 50), wherein, when the communication terminal device moves from a first subnetwork to a second subnetwork in the domain or in different domains (see Fig. 2), the communication terminal device creates an address (care-off address) based on

information that is contained in a router advertisement serving as an information notification message that is received from a router on the second subnetwork (page 5, paragraph 50, the communication hand-off between local router R1 and R2 requires mobile node 135 to establish a new care-off IP address identifying its new affiliation with local routehr R2 and to register the new care-off IP address).

Regarding claim 25, Gwon teaches a method wherein, when the communication terminal device moves between sub-networks in the domain or in different domains, the communication terminal device sends a routing update message to a router in the domain (page 5, paragraph 50, binding update message).

Regarding claim 26, Gwon teaches when the communication terminal device moves between subnetworks in different domains (see Fig. 2), the communication terminal device stores a virtual-network-prefix-based IPv6 address as a care-of address in a binding update packet (page 5, paragraph 50, also refer to the end of paragraph 44: Fig. 2 illustrates the hand-off process in a mobile IP version 6 network), the virtual-network-prefix-based IPv6 address being created according to address configuration based on the virtual network prefix (page 5, paragraph 50), and sends the binding update packet to a home agent which manages the mobile node (page 5, paragraph 50).

Regarding claims 28 and 29, Gwon teaches a communication processing system comprising a mobile node (Figs. 1 and 2, mobile 135) which is a mobile communication terminal device, said system configured such that: in a domain including at least one subnetwork (Fig. 1, subnetwork 155), each subnetwork being associated with a physical network prefix (page 4, paragraph 42, network IDs and addresses), a virtual network

prefix for the mobile node is determined as a network prefix that is different from the physical network prefix (page 5, paragraph 50, care of IP address), an address is configured based on the virtual network prefix and an identifier of the mobile node (page 5, paragraph 50), the communications process with the mobile node is performed according to the address (page 5, paragraph 50), and when the mobile node moves from a first subnetwork to a second subnetwork in the domain or in different domains (Fig. 2, from router R1 to R2), the mobile node creates an address (care-of address) based on information that is contained in a router advertisement serving as an information notification message that is received from a router on the second subnetwork (page 5, paragraph 50).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 2, 3, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gwon (US 2003/0016655 A1) in view of Ishiyama et al. (US 6,973,506).

Regarding claims 2 and 13, Gwon teaches an identifier for the mobile node, but fails to explicitly disclose the identifier of the mobile node as a unique identifier in the domain for identifying the mobile node.

It is well known in the art for mobiles to have a unique identifier. Furthermore, Ishiyama teaches a mobile node having a unique identifier in the domain for identifying the mobile node (col. 9, lines 63-67; col. 10, lines 1-3).

In view of this, it would have been obvious to one skilled in the art to include a unique identifier, for the purpose of distinguishing mobile nodes from one another, located in different domains.

Regarding claims 3 and 14, Gwon teaches an identifier for the mobile node, but fails to explicitly disclose a unique interface ID in the domain for identifying the mobile node.

It is well known in the art for mobiles to have a unique identifier. Furthermore, Ishiyama teaches a mobile node having a unique interface ID in the domain for identifying the mobile node (col. 9, lines 63-67; col. 10, lines 1-3).

In view of this, it would have been obvious to one skilled in the art to include a unique interface ID, for the purpose of identifying particular interfaces.

4. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gwon (US 2003/0016655 A1).

Regarding claim 27, Gwon teaches the same limitations described above in the rejection of claim 22. Examiner takes official notice that it is well known in the art for a program to cause a communications process to be executed on a computer system, in order to execute the steps described in claim 22.

Allowable Subject Matter

5. Claims 7, 8, 18, 19, 23 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments with respect to claim 1,10,12 and 21 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rhonda Murphy whose telephone number is (571) 272-3185. The examiner can normally be reached on Monday - Friday 8:00 - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Rhonda Murphy
Examiner
Art Unit 2616

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